UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,819	08/29/2001	David R. Larson	10019074-1	7583

7590 08/13/2004	EXAMINER
HEWLETT-PACKARD COMPANY	ROSARIO-VASQUEZ, DENNIS
Intellectual Property Administration	

ART UNIT	PAPER NUMBER
2621	

P.O. Box 272400
Fort Collins, CO   80527-2400

DATE MAILED: 08/13/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 August 2001*.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08/29/2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____ .

DETAILED ACTION

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.   Claims 1,2,3,4,6,7,8,9,13,14,15,16,17,18 and 19 are rejected under 35

U.S.C. 102(b) as being anticipated by Lin et al. (US Patent 6,211,868 B1).

Regarding claim 1, Lin et al. discloses a document processing system for

modifying image data, the image data including a foreground component and a

background component, said document processing system comprising:

an image enhancement system configured to receive image data (In the Lin

reference, a multimedia system corresponds with the claimed image enhancement

system that is configured to receive icon and color data in step 106 of a program shown

fig. 1 in col., lines 50,51.), receive information corresponding to a request for

modification of the image data (Fig. 2A,num. 202-204 receives icons and characters

upon a request of a user to select either 202-204.), and, in response to the request,

modify the image data (The icons and characters are modified using foreground,

background and shading setting procedures 225,226,227 of fig. 2C in col. 3, lines 30-

34.) by increasing contrast between the foreground component and the background

component (Fig. 2C shows the setting procedures that have a associated window 232

of figure 2D in col. 3, lines 43-46 for increasing the contrast using a setting window 239

that contains up and down arrows for changing the contrast. Note that one of the three

setting procedures is selected in col. 3, lines 43-46. Thus, the background setting

procedure 225 of fig. 2C is selected to increase the contrast of a background

component 223 of fig. 2C using the up and down arrows of the setting window 239 of

fig. 2D with respect to the foreground component 222 of fig. 2C.) and altering lightness

of both the foreground component and the background component (Brightness 240 of

fig. 2D corresponds with the claimed lightness of both the background and foreground

components that can be altered when the background and foreground procedures

225,226 are selected using the respective window 232 of fig. 2D for each setting

procedure).

Regarding claim 2, Lin et al. discloses the document processing system of claim

1, further comprising:

An actuator ("Next" 231,250 and "Previous" 230,249 blocks of fig. 2C and 2E

switch between the display of fig. 2C and 2E.) communicating with said image

enhancement system (multimedia system), said actuator ("Next" 231,250 and

"Previous" 230,249 blocks of fig. 2C and 2E) having an actuated state (A user selects

either the next or previous blocks.) corresponding to the request for modification (Fig.

2A,num. 202-204 receives icons and characters upon a request of either 202-204.) of

the image data (icon and color data).

When a user selects the next or previous blocks a corresponding display (fig. 2C

or 2E) appears that allows a user to modify the image data.

Regarding claim 3, Lin et al. discloses the document processing system of claim 2, wherein said actuator ("Next" 231,250 and "Previous" 230,249 blocks of fig. 2C and 2E) is implemented via a graphical user interface (as shown in figure 2C and 2E).

Regarding claim 4, Lin et al. discloses the document processing system of claim 3, further comprising:

A document processing device (Step 215 of fig. 2B is a program that processes characters.) communicating with said image enhancement system (multimedia system), said document processing device (Step 215 of a program that processes characters.) being configured to produce a document (Fig. 2B, step 219 displays characters.) with the image data (icon and color data), said document processing device (Step 215 of a program that processes characters.) including said actuator ("Next" 231,250 and "Previous" 230,249 blocks of fig. 2C and 2E).

Fig. 2E is a display of an icon and character program that corresponds with the program of fig. 2B, step 215.

Regarding claim 6, Lin et al. discloses the document processing system of fig. 1, wherein said image enhancement system (multimedia system) is configured to modify the image data incrementally (as shown in fig. 2D, num. 234-240), such that, at a first increment (selection of 226 of fig. 2C.), the image data is modified by increasing contrast (239 of fig. 2D) between the foreground component (fig. 2C, num. 222) and the background component (fig. 2C, num. 223).

Regarding claim 7, Lin et al. discloses the document processing system of claim 6, at said first increment (selection of 226 of fig. 2C), lightness (Brightness of fig. 2D, num. 240) of only the foreground component (222 of fig. 2C) is increased (using the "up arrow" of 240) or decreased (using the "down arrow" of 240).

Claim 8 has been addressed in claim 7.

Regarding claim 9, Lin et al. discloses the document processing system of claim 6, wherein, at said first increment (selection of 226 of fig. 2C), lightness of only of the foreground component (222 of fig. 2C) is altered (This portion of the limitation was addressed in claim 7.), and at a second increment (Loop back to fig. 2C to select the other selection of 225 of fig. 2C upon the selection of 251 of fig. 2D and mentioned in col. 3, lines 52,53.), the image data (icon and color data) is modified by altering lightness (Brightness of fig. 2D, num. 240) of the other background component (fig. 2C,num. 223) such that overall lightness of the image data is altered (A brightness change of both the foreground and background components results in a overall change of brightness).

Claim 13 has been addressed in claim 1.

Claim 14 has been addressed in claims 2 and 3.

Claim 15 has been addressed in claim 12.

Claim 16 has been addressed in claim 6.

Claim 17 has been addressed in claim 7.

Claim 18 has been addressed in claim 8.

Claim 19 has been addressed in claim 9.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lin et al.

(US Patent 6,211,868 B1) in view of

Regarding claim 5, Lin et al teaches the document processing system of claim 4,

wherein said document processing device is a computer program and does not teach

the limitation of claim 5. However, Lin et al. does suggest using a computer program for

modifying characters and fonts.

Kim et al., in the field of endeavor of color printing, does teach a document

processing device is a printer that uses a program with fonts (Kim et al. col. 11, lines 58-

64) as suggested by Lin et al.

It would have been obvious at the time the invention was made to one of ordinary

skill in the art to modify Lin et al. 's teaching of a document processing device of a

computer program with Kim et al.'s teaching of a printer with a program because, Kim et

al.'s printer "generates full color images with appropriate fonts and text" as mentioned in

col. 11, lines 58,59.

5.   Claims 10,11,12 and 20 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Lin et al. (US Patent 6,211,868 B1) in view of Schreiber (US Patent

4,500,919 A).

Regarding claim 10, Lin et al. teaches that the document processing system of claim 1, wherein said image enhancement system (multimedia system) is configured to separate the image data into a foreground and background component and does not suggest separating image data into a color component and a lightness component and modify only the lightness component of the image data.

However, Schreiber does teach an image enhancement system (fig. 3) is configured to separate image data (RGB input data of fig. 3) into a color component (saturation component) and a lightness component ("L" or luminance outputted from 24 of fig. 3.) and modify only the lightness component (35 of fig. 3 has a separate process to modify shadows as mentioned in col. 8, lines 38-41.) of the image data (RGB input data of fig. 3).

It would have been obvious at the time the invention was made to one of ordinary skill in the art to modify Lin et al's teaching of separating an image into a background and foreground with Schreiber's teaching of separation of color components, because Schreiber's teaching provides for individual correction for shadow effects and allows a user to achieve an overall desired color change as mentioned in col. 8, lines 40-42,53-57.

Regarding claim 11, Schreiber teaches the document processing system of claim 10, wherein said image enhancement system (fig. 3) is configured to receive the image data in RGB format (RGB input data of fig. 3), convert the image data to Lightness Hue Chroma format (Lightness Hue Saturation format mentioned in col. 1, line 2. Note that saturation in an aspect of color as mentioned in col. 2, line 3.), and convert the image data to RGB format (The output of fig. 3 is converted to RGB format.) after modification (35 of fig. 3 has a separate process to modify shadows as mentioned in col. 8, lines 38-41.).

Regarding claim 12, Lin et al. discloses the document processing system of claim 10, further comprising:

means (fig. 8, num. 804 is a work area as mentioned in col. 7, lines 5-8.) for producing a document (The work area is of a word processor as mentioned in col. 7, lines 5-8.) with the image data (icon and color data).

The document 804 of fig. 8 with image data as icons next to each word in 804 are integrated.

Claim 20 has been addressed in claim 10.

Conclusion

6.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Shin et al. (US Patent 5,524,070 A) is pertinent as teaching a method of adjusting contrast with respect to a background and foreground component as mentioned in col. 2, lines 10,11.

Bollman et al. (US Patent 5,289,297 A) is pertinent as teaching a method of selecting a background 220 or foreground 230 component and modifying 290 the foreground component as shown in fig. 4A.
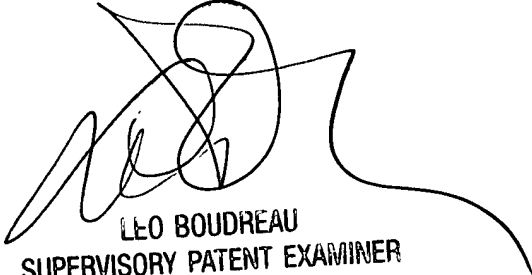
Parker et al. (US Patent 4,651,064 A) is pertinent as teaching a method of independently controlling the intensity of a background and foreground component as mentioned in col. 1, lines 41-45.

7.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis Rosario-Vasquez whose telephone number is 703-305-5431. The examiner can normally be reached on 9-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Boudreau can be reached on 703-305-4706. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dennis Rosario-Vasquez
Unit 2621

LEO BOUDREAU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600